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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/157,758	09/21/1998	RAAFAT EDWARD KAMEL	KAMEL-2-15-1	2883

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EXAMINER	
TON, DANG T	

ART UNIT	PAPER NUMBER
2666	24

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/157,758	KAMEL ET AL.	
	Examiner	Art Unit	
	DANG T TON	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,2,4,8,9,10,15,16,21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Nakano et al.

For claim 1, Chen discloses a wireless communications system

having a base station (see base station in box 202 of Fig. 5A) and a mobile unit (see mobile station in box 202 of Fig 5A), a method for setting initial power levels between the mobile unit and the base station upon receipt of a service request (see high power control/mode (fast feedback mode)in box 202 of Fig 5A),the method comprising the steps of: calculating, at the base station, an interference measure based on the first power, where the first power of a link signal received at mobile unit (see base station determines quality of reverse link in box 204 of Fig 5A and column 7 lines 50-56 and column 3 lines 11-19) ; and setting an initial power level in a forward link based on the interference measure (see base station enters lower power control feed back mode in box 208 of Fig 5A).

For claim 2, Chen discloses a method wherein the step of calculating determines a difference between the first power and the second power , where the second power is power of the link signal transmitted from the base station (see column 3 lines 11-19 and TX power, Fade, and Rx power in fig 4).

For claim 4, Chen discloses a method further comprising receiving , at the base station a value of the first power a request for services transmission from the mobile unit (see power values in Fig 7B).

For claim 8, Chen discloses a method further comprising receiving , at the base station a value of the first power in an access channel transmission from the mobile unit(see power values in Fig 7B).

For claim 9, Chen discloses a wireless communications system having a base station (see base station in box 202 of Fig. 5A) and a mobile unit (see mobile station in box 202 of Fig 5A), a method for setting up a call between the mobile unit and the base station, the method comprising the steps of:

receiving a request for services over an access channel from the mobile unit (see column 4 lines 55-59);

determining an interference measure based on a first power, where the first power is the power of a link signal received at the mobile unit, a value of the first power being received by the base station over the access channel (power values in Fig 7B and see base station determines quality of reverse link in box 204 of Fig 5A and column 7 lines 50-56 and column 3 lines 11-19);

and setting an initial power level in a forward link traffic channel transmission based on said interference measure (see base station enters lower power control feed back mode in box 208 of Fig 5A).

For claims 10 and 16, Chen disclose a difference between first power and the second power , where the second power is power of the link signal transmitted from the base station (see column 3 lines 11-19); and subtracting the value from a second power, where the second power is the power of the link signal transmitted from the base station (see column 3 lines 11-19 and TX power, Fade, and Rx power in Fig 4).

For claim 15, Chen discloses a wireless CDMA based communications system having a base station (see base station in box 202 of Fig. 5A) and a mobile unit (see mobile station in box 202 of Fig 5A),a method for setting up a call between the mobile unit and the base station (see column 4 lines 55-59), the method comprising the steps of:

receiving an access probe from the mobile unit (see column 4 lines 55-59 and Yes or No signal from box 206 in Fig 5A);

determining an interference measure based on a first power, where the first power is power of a link signal received at a mobile unit , a value of the first power in the access probe (see base station determines quality of reverse link in box 204 of Fig 5A and column 7 lines 50-56 and column 3 lines 11-19 and power values in Fig 7B);

and setting an initial power in a forward link traffic channel

transmission based on the interference measure (see base station enters lower power control feed back mode in box 208 of Fig 5A)

For claim 21, Chen discloses a wireless communications system having a base station (see base station in box 202 of Fig. 5A) and a mobile unit (see mobile station in box 202 of Fig 5A), a method for setting initial power levels between the mobile unit and the base station(see high power control mode (fast feedback mode) in box 202 of Fig 5A), the method comprising the steps of calculating an interference measure based on a first power, where the first power of a link signal at the mobile station unit and a second power, where the second power is the power of the link signal transmitted by the base station (see base station determines quality of reverse link in box 204 of Fig 5A and column 7 lines 50-56 and column 3 lines 11-19 and power values in Fig 7B and TX power, Fade, and RX power in Figure 4);
and a setting an initial power level in a forward link based on said interference measure (see base station enters lower power control feed back mode in box 208 of Fig 5A).

For claim 22, Chen discloses a method wherein the step of calculating determines a difference between the first power and the second power (see column 3 lines 11-19 and

TX power, Fade, and RX power in Fig 4).

For claims 1,2,4,8,9,15,21, and 22, Chen discloses all the subject matter of the claimed invention with the exception of power of a pilot signal in a communications network. Nakano et al from the same or similar fields of endeavor teaches each of the mobile units including a pilot signal reception level measuring circuit for measuring reception power of the received pilot signal (see details of box 119 in figure 4 and abstract lines 7-9). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to use replace the power of link signal of Chen with the power of pilot signal as taught by Nakano et al. The power of pilot signal can be implemented/modified into the network of Chen by replacing the link signal of Chen with the pilot signal of Nakano et al. The motivation for using the pilot signal as taught by Nakano et al in the communications network of Chen being that it is possible to control the transmission power of the base and mobile stations accurately.

For claims 10 and 16, Chen discloses all the subject matter of the claimed invention with the exception of extracting the mobile unit received pilot power from the transmitted messages in access channel/probe in a communications network. Nakano et

al. from the same or similar fields of endeavor teaches the second received data by spreading the data signal by the data channel dispreading circuit and obtains received pilot signal be spreading data signal by the pilot channel dispreading circuit (see column 5 lines 30-35). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the despreading circuits/extracting circuits as taught by Nakano et al. in the communications network Chen. The despreading circuits/extracting circuits as taught by Nakano et al. can be implemented/modified by connecting the despreading circuit at the base station of Chen since the probe signal received at the base station from the mobile station. The motivation for using the despreading circuits/extracting circuits as taught by Nakano et al. into the communications network of Chen being that it provides a system reliable since it is possible to despread the pilot signal and control the transmission power accurately.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3,5,6,11,12,13,17,18,19,23,24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Nakano et al. as applied to claims 1,2,4,8,9,10,15,16,21, and 22 above, and further in view of Love et al.

For claims 3,5,6,11,12,13,17,18,19, 23,24, and 25, Chen and Nakano et al. disclose all the subject matter of the claimed invention with the exception of the TX power and RX power defined by the ratio E0/I0, wherein each the Ec/Io, represents a ratio between
energy per chip to interference density as recited in claims 3 11,17,and 23; wherein the interference measure indicates interference levels due to other base station and mobile receive noise as recited in claims 5,12,18, and 24; and wherein the interference measure being linearly related to the initial power

level in a communications network as recited in claims 6,13,19, and 25 . Love et al from the same or similar fields of endeavor teaches a provision of the mobile unit received pilot power and the base station transmitted pilot power are defined by the ratio Ec/Io, and wherein each the Ec/Io, represents a ratio between energy per chip to interference density (see equation 1 in column 3 line 62); the interference measure indicates interference levels due to other base station and mobile receive noise (see other cells at column 3 lines 52-53); and the interference measure being linearly related to the initial power level (see column 4 lines 53-55). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the TX power and RX power defined by the ratio E0/I0, wherein each the Ec/Io, represents a ratio between energy per chip to interference density ; the interference measure indicating interference levels due to other base station and mobile receive noise ; and

interference measure being linearly related to the initial power level in a communications network as taught by Love et al. in the communications network of Chen and Nakano et al. The TX power and RX power defined by the ratio E0/I0, wherein each the Ec/Io, represents a ratio between energy per chip to interference density ; the interference measure indicating

interference levels due to other base station and mobile receive noise ; and

interference measure being linearly related to the initial power level in a communications network as taught by Love et al can be implemented/modified into network of Chen since Chen does teach improved power control in a closes loop communication system and the base station box 204 can perform the functions above. The motivation for using the TX power and RX power defined by the ratio E0/I0, wherein each the Ec/Io, represents a ratio between energy per chip to interference density ; the interference measure indicating interference levels due to other base station and mobile receive noise ; and

interference measure being linearly related to the initial power level as taught by Love et al. into the communications network of Chen and Nakano et al. being that it provides a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the forward link capacity, and prevent involuntary dropping of the calls.

5. Claims 7,14, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Nakano et al. as

applied to claims 1,9,and 21 above, and further in view Meidan et al.

For claims 7,14,and 26, Chen and Nakano et al. disclose all the subject matter of the claimed invention with the exception of the interference measure being monotonically related to the initial power level in a communications network. Meidan et al. from the same or similar fields of endeavor teaches the estimated carrier to interference power ratio with a metric at least comprising a monotonically related function (see column 18 lines 41-50). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the monotonically interference measure as taught by Meidan et al. in the communications network Chen and Nakano et al. The monotonically interference measure as taught by Meidan et al. can be modified/implemented into the communications network Chen since Chen also disclose the interference measure but not specific using the monotonically interference measure related to the initial power level. The motivation for using the monotonically interference measure as taught by Meidan et al in the communications network of Chen and Nakano et al. being that it provides for improving detection of data bits in data samples and a need for controlling the forward link communication capacity in response to the forward link interference limitation

to maximize the capacity prevent involuntary dropping of the calls.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Nakono et al. in view of Love et al. as applied to claims 15-17 above, and further in view of Meidan et al.

For claim 20, Chen , Nakano et al., and Love et al. disclose all the subject matter of the claimed invention with the exception of the interference measure being monotonically related to the initial power level in a communications network. Meidan et al. from the same or similar fields of endeavor teaches the estimated carrier to interference power ratio with a metric at least comprising a monotonically related function (see column 18 lines 41-50). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the monotonically interference measure as taught by Meidan et al. in the communications network Chen, Nakano et al., and Love et al. The monotonically interference measure as taught by Meidan et al. can be modified/implemented into the communications network Chen since Chen also disclose the interference measure but not specific using the monotonically interference measure related to the initial power level. The motivation for using the monotonically interference measure as

taught by Meidan et al in the communications network of Chen , Nakano et al., and Love et al. being that it provides for improving detection of data bits in data samples and a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the capacity prevent involuntary dropping of the calls.

7. Applicant's arguments filed 7/72004 have been fully considered but they are not persuasive.

in the remarks of 7/7/2004, applicant traverses the rejections under 35 USC 103. The traversal is based on ground that the references do not teach the power of a pilot signal received at a mobile unit and setting an initial power level in a forward link based on the interference measure. Those arguments are not found to be persuasive. Applicant's attention is directed at box 204 of figure 5A and column 7 lines 50-56 and column 3 lines 11-19 wherein it teaches mobile receives power of the link signal and box 208 in figure 5A wherein it teaches base station enters (setting) lower power control feed back mode .

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T TON whose telephone number is 703-305-4739. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

D. Ton

DANG TON
PRIMARY EXAMINER